

## **SECTION 02 41 19**

### **SELECTIVE STRUCTURE DEMOLITION**

#### **PART 1 - GENERAL**

##### **1.01 SECTION INCLUDES**

- A. Inspection.
- B. Demolition.
- C. Cutting.
- D. Salving.
- E. Initial building cleaning.
- F. Disposal of debris.
- G. Restoration of existing structures and facilities.

##### **1.02 RELATED SECTIONS**

- A. Temporary facilities, such as fences, barricades, warning lights, and other temporary safety measures, are specified in Section 01 52 00 - Construction Facilities. Provide such additional temporary facilities as may be required to facilitate continuous station or building operations during transitional construction work.
- B. Dust control is specified in Section 01 57 00 - Temporary Controls.

##### **1.03 MEASUREMENT AND PAYMENT**

- A. Measurement: Selective demolition will be measured for payment by the lump-sum method, acceptably performed and completed.
- B. Payment: Selective demolition will be paid for at the Contract lump-sum price, as indicated in the Bid Schedule of the Bid Form.

##### **1.04 REFERENCES**

- A. American National Standards Institute (ANSI):
  - 1. ANSI A10.6 Safety Requirements for Demolition Operations

**1.05 REGULATORY REQUIREMENTS**

- A. In addition to the foregoing referenced standards, the regulatory requirements which govern the work of this Section include the following governing codes:
1. California Code of Regulations (CCR), Title 8, Chapter 4, Subchapter 4, Construction Safety Orders.
  2. California Code of Regulations (CCR), Title 24, Part 2, California Building Code, Chapter 33, "Site Work, Demolition and Construction."

**1.06 DESCRIPTION**

- A. The station or building involved in this work will be in continuous operation during the construction period. This will require that the Contractor plan the Work carefully to work around unavoidable obstacles in the prosecution of the Work. It will require further that the Contractor complete some new construction facilities required in the renovation work before removing existing like facilities during transitional work.
- B. Utility services to facilities to be removed or demolished shall be disconnected, cut, and capped, as required.
- C. The work includes restoration of existing structures and facilities to remain in place that are damaged by demolition and removal operations.

**1.07 PERMITS:**

- A. The Contractor shall obtain all special permits and licenses and give all notices required for performance and completion of the selective demolition and removal work, hauling, and disposal of debris.

**1.08 SUBMITTALS**

- A. General: Refer to Section 01 33 00 - Submittal Procedures, and Section 01 33 23 - Shop Drawings, Product Data, and Samples, for submittal requirements and procedures.
- B. Selective Demolition Plan: Submit a comprehensive selective demolition plan, describing the proposed sequence, methods, and equipment for demolition, removal, and disposal of structure(s); include salvage if required. Do not proceed with demolition work until the Engineer has approved the selective demolition plan.
- C. Permits: Submit copies of demolition, hauling, and debris disposal permits and notices for record purposes. Include description of proposed haul routes.
- D. Utility Severance Certificates: Provide certificates, issued by the utility owners, of severance of utility services for record purposes.
- E. Private Property Owner's Release: If material demolished and removed from the site will be deposited on private property, submit two copies of written releases not more than 15 days before the start of work. Releases shall absolve the District from responsibility in

connection with the depositing of material on private property, and shall be signed by the owners of such property on which the material will be deposited.

- F. Record Documents: Provide copies of all approved submittals, specified herein, for record purposes in accordance with the requirements of Section 01 78 39 - Project Record Documents.

#### **1.09 SITE CONDITIONS**

- A. Protection of Persons and Property: Erect and maintain temporary bracing, shoring, lights, barricades, baffles, curtains, signs, and other measures as necessary to protect the public, workers, and adjoining property from damage from demolition work, all in accordance with applicable codes and regulations. Conform also with applicable requirements of Section 01 57 00 - Temporary Controls.
- B. Protection of Utilities:
1. Protect active sewer, water, gas, electric, and other utilities; and drainage and irrigation lines indicated or, when not indicated, found or otherwise made known to the Contractor before or during demolition work. If utility is damaged, immediately notify the utility owner for corrective action.
  2. Arrange with and perform work required by utility companies and municipal departments for discontinuance or interruption of utility services due to demolition work.
- C. Noise and Dust Abatement: Comply with requirements specified in Section 01 57 00 - Temporary Controls, and the following:
1. Provide continuous noise and dust abatement as required to prevent disturbance and nuisance to the public and workers and to the occupants of adjacent premises and surrounding areas. Dampen or cover areas affected by demolition operations as necessary to prevent dust nuisance.
  2. When a certain level of noise is unavoidable because of the nature of the work or equipment involved, and such noise is objectionable to the occupants of adjacent premises, make arrangements with the authorities having jurisdiction to perform such work or operate such equipment at the most appropriate time periods of the day. Provide abatement measures to the extent feasible and practicable.
- D. Unknown Conditions:
1. The Contract Drawings and related documents may not represent all surface conditions at the site and adjoining areas. The known surface conditions are as indicated, and shall be compared with actual conditions before commencement of work.
  2. Existing utilities and drainage systems below grade are located from existing documents and from surface facilities such as manholes, valve boxes, area drains, and other such surface fixtures.

3. If existing active services encountered are not indicated or otherwise made known to the Contractor and interfere with the permanent facilities under construction, notify the Engineer in writing, requesting instructions on their disposition. Take immediate steps to ensure that the service provided is not interrupted, and do not proceed with the work until written instructions are received from the Engineer.

## **PART 2 - PRODUCTS**

### **2.01 MATERIALS, EQUIPMENT, AND FACILITIES**

- A. The Contractor shall furnish all materials, tools, equipment, devices, appurtenances, facilities, and services as required for performing the selective demolition and removal work.
- B. Materials forming portions of the structure indicated to be removed shall become the Contractor's property, and the Contractor shall be responsible for their removal from the site.

## **PART 3 - EXECUTION**

### **3.01 INSPECTION**

- A. Prior to starting selective demolition operations, perform a thorough inspection of the building and premises, and report to the Engineer any defects and structural weaknesses of existing construction and of improvements to remain.
- B. Examine areas affected by the Work of this Section and verify the following conditions:
  1. Disconnection of utilities as required.
  2. That utilities serving occupied portions of adjacent or surrounding facilities will not be disturbed, except as otherwise indicated.
- C. If unsatisfactory conditions exist, notify the Engineer, and do not begin demotion operations until such conditions have been corrected.

### **3.02 PREPARATION**

- A. The limits of the site are shown on the Contract Drawings. The Contractor shall confine its operations within the site limits indicated.
- B. Lay out cutting work at the site and coordinate with related Work for which cutting is required.
- C. Review the proposed layout with the Engineer prior to performing cutting operations.

### **3.03 DEMOLITION**

- A. Operational Procedures and Methods:

1. Perform demolition and removal work in accordance with the approved Selective Demolition Plan. Perform demolition work in accordance with ANSI A10.6 and the California Code of Regulations, Title 8 and Title 24, as applicable.
2. Operational procedures shall be optional with the Contractor insofar as procedures do not infringe on the approved work schedule or salvage requirements. Conduct demolition and removal work in a manner that will minimize the spread of dust and flying particles.
3. Remove items indicated for demolition within the limits of the Work and as required to complete the Work of this Contract. Do not remove anything beyond the limits of Work indicated without prior written approval of the Engineer. If in doubt whether to remove an item, obtain written approval of the Engineer prior to proceeding.
4. Remove materials carefully, to the extent indicated and as required, providing for neat and orderly junctions between existing and new materials.
5. Protect existing structures, facilities, and landscaping from damage. Items damaged as a result of demolition operations shall be repaired or replaced, as required, at no increase in the Contract Price.
6. Perform work so as to provide the least interference and most protection to existing facilities and improvements to remain.
7. Demolish concrete and masonry in small sections. Perform demolition with small tools as much as possible. Blasting will not be permitted.

B. Jackhammering:

1. Jackhammering will be permitted only to a limited degree with prior approval of the Engineer.
2. Do not jackhammer within 2 inches of reinforcing or structural steel to remain. Remove final 2 inches of material with a chipping gun.

**3.04 CUTTING**

- A. Cut new openings neat, as close as possible to profiles indicated.
- B. Do not cut or alter structural members without the prior written approval of the Engineer.
- C. Remove concrete and masonry whenever possible by saw cutting or similar approved method.

**3.05 SALVAGING**

- A. Certain items, as indicated, shall be salvaged and reused in the Work or delivered to a District storage facility as directed.
- B. Where salvaging is required, procedures shall be such that the maximum amount of salvage will result.

- C. Coordinate the Work of this section closely with the Work of other sections of these Specifications requiring salvage and reuse of materials.
- D. Refer to other Divisions for mechanical and electrical equipment removal and salvage requirements.

### **3.06 INITIAL BUILDING CLEANING**

- A. After demolition operations are completed, or along with demolition operations, as appropriate, clean the entire buildings and site of all dirt and dust, cobwebs, oil and grease, stains of asphalt and paint, and the various encrustations.
- B. Ceilings, walls, and floors shall be dusted and wiped clean with brooms and cloths or other suitable methods as required to clean all surfaces free of dirt and dust.
- C. Use suitable cleaning fluids or solvents, steel wool, blow-torch burning, scraping, and power sanding as required to remove the various encrustations and stains, including asphalt.
- D. Broom clean the entire building and site immediately after demolition is complete. Provide a clean and orderly site in accordance with applicable requirements of Section 01 74 14 - Cleaning.

### **3.07 DISPOSAL OF DEBRIS**

- A. Dispose of removed materials, waste, trash, and debris in a safe, acceptable manner, in accordance with applicable laws and ordinances and as prescribed by authorities having jurisdiction.
- B. Burying of trash and debris on the site will not be permitted. Burning of trash and debris at the site will not be permitted.
- C. Remove trash and debris from the site at frequent intervals so that their presence will not delay the progress of the work.
- D. Removed materials, trash, and debris shall become the property of the Contractor and shall be removed from the District's property and disposed of in a legal manner. Location of disposal site and length of haul shall be the Contractor's responsibility.

### **3.08 RESTORATION OF EXISTING STRUCTURES AND FACILITIES**

- A. All damage to existing structures and facilities, which are to remain in place, shall be repaired to a condition equal to that existing prior to the beginning of demolition and removal operations. The cost of repairing existing structures and facilities damaged by the Contractor's operations shall be at the Contractor's expense.

### **3.09 FIELD QUALITY CONTROL**

- A. Following performance of the Work, perform an inspection of the premises and report defects and structural weaknesses of structures partially demolished, cut, or removed; of adjacent structures; and of improvements remaining.

- B. The Engineer will accompany the Contractor before and after performance of the Work to confirm the physical condition of the structures and improvements involved.

**END OF SECTION 02 41 19**